UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,061	09/30/2003	Alfred R. DeAngelis	5664	5846

7590 09/21/2004

Jeffery E. Bacon
Legal Department
M-495
PO Box 1926
Spartanburg, SC 29304

EXAMINER	
PATEL, VINOD D	
ART UNIT	**PAPER NUMBER**
3742	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/675,061	DEANGELIS ET AL.	
	Examiner	Art Unit	
	Vinod D. Patel	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/21/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED OFFICE ACTION

INTRODUCTION

1. This application/control number 10/675,061 has been examined. This is the first action on the merits of the claimed invention. The application has claims 1-40 pending.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-40 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/675,062 or claims 1-20 of Application No. 10/675,056. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims are written using different words but claimed resulting structure shown in the Figures 1-9 is same for both applications. In addition both applications discloses same specification (20 pages), same abstract (1 page) and same drawings Figures 1-9.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US6768086) in view of Kochman (US6713733).

Sullivan (Fig. 1-6) discloses an electrical connection of flexible conductive strands in a flexible body (20) comprising: a flexible planar body (22) having a conductive resistance pathway (24) including at least one conductive resistance flexible strand of material, and a temperature dependent variable resistance pathway (28) having at least one temperature dependent variable resistance flexible strand of material, wherein the conductive resistance pathway and the temperature dependent variable resistance pathway have different routes in the flexible planar body as shown in the Figure 3. The flexible heater according to Figure 4, the conductive resistance pathway (324) includes a plurality of conductive resistance flexible strands of material. The flexible heater according to Figure 4, wherein the conductive resistance pathway further includes a first supply bus (302) flexible strand of material and a second supply bus (304) flexible strand of material electrically connected with the conductive resistance flexible strands of material, and where in the conductive resistance (324) flexible strands of material are electrically connected in parallel between the first supply bus flexible strand of material and the second supply bus flexible strand of material. The flexible heater wherein the temperature dependent variable resistance flexible strand of material has a positive coefficient of temperature

to resistance (Abstract). The flexible heater (warming blanket fabric) body further includes a plurality of non-conductive flexible strands of material of the flexible planar body are interlaced. The flexible heater according to the Figures 3-5, the conductive resistance pathway crosses the temperature resistance dependent variable resistance pathway in at least one crossing location, wherein the conductive resistance pathway crosses the temperature resistance dependent variable resistance pathway in about a substantially perpendicular direction. The flexible heater (warming blanket fabric) wherein the conductive resistance flexible strand of material comprises a conducting resistance yarn. The flexible heater wherein the conductive resistance pathway includes a plurality of conductive resistance yarns. The flexible heater wherein the conductive resistance pathway further includes a first and a second supply bus yarn, and where in the conductive resistance yarns are electrically connected in parallel between the first supply bus yarn and the second supply bus yarn. The flexible heater wherein the temperature dependent variable resistance flexible strand of material comprises a temperature dependent variable resistance yarn. The flexible heater wherein the temperature dependent variable resistance yarn has a positive coefficient of temperature to resistance. The flexible heater (Figure 3-5) wherein the temperature dependent variable resistance pathway further includes a first connection bus yarn and a second connection bus yarn, and wherein the temperature dependent variable resistance yarns are electrically connected in series by the first connection bus yarn and the second connection bps yarn. The flexible heater (Figure 3-5) wherein the flexible body further comprises a plurality of non-conductive yarns. The flexible heater, wherein the plurality of non-conductive yarns of the flexible planar body are woven together. The flexible heater (Figure 3-5) wherein the conductive resistance pathway crosses the temperature resistance dependent variable

resistance pathway in at least one crossing location, wherein the conductive resistance pathway crosses the temperature resistance dependent variable resistance pathway in about a substantially perpendicular direction.

Sullivan does not disclose the flexible heater having the temperature variable resistance flexible strand of material having a positive coefficient of temperature to resistance as recited in claim 1, lines 4-6.

Kochman discloses a flexible heater (column 4, lines 19-28) wherein the temperature dependent variable resistance flexible strand of material has the temperature variable resistance flexible strand of material having a positive coefficient of temperature to resistance to detect local over heating through the entire length of the heating element or a positive coefficient of temperature to resistance to provide precise temperature control of the heating system to provide a high level of safety, minimizing the possibility of fire hazard (column 4, lines 19-28).

It would have been obvious to use the temperature variable resistance flexible strand of material having a negative coefficient of temperature to resistance as taught by the Kochman for the flexible heater of Sulliven to detect local over heating through entire length of the heating element to provide precise temperature control of the heating system and a high level of safety, minimizing the possibility of fire hazard.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod D. Patel whose telephone number is 703-308-5227. The examiner can normally be reached on 7.30 A.M. TO 4.00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vinod Patel 9-20-04

VP

Vinod Patel
Patent Examiner
Art Unit 3742

Robin O. Evans

ROBIN O. EVANS
PRIMARY EXAMINER
9/20/04